

Claims

1. A method for creating active finite elements comprising the steps of:

5

a) constructing the active finite elements with a combinations of motor elements, dashpot elements and spring elements,

10 b) defining the motor element using a time series function, and

c) constructing a model with the active finite elements, and

d) analyzing the model using a finite element code.

15 2. The method of Claim 1 wherein said finite element code is a conventional code.

3. The method of Claim 1 wherein said finite elements are one-dimensional or two-dimensional or three-dimensional.

20 4. The method of Claim 1 wherein the shapes of said finite elements are linear, triangular, rectangular, quadrilateral, pentagonal, hexagonal, octagonal,

decagonal, polygonal, tetrahedral, pentahedral  
hexahedral, octahedral, decahedral or polyhedral.

5. The method of Claim 1 wherein the types of said  
finite elements are solid continuum elements like bar,  
plane stress or plane strain elements, or structural  
elements like beam, plate, truss, membrane, shell or  
frame elements, or other special-purpose elements.